

Fort Davis

National Historic Site

National Park Service
U.S. Department of the Interior



Curriculum Materials Grades 2-5

Teacher Notes: Mapping the Great American Desert

Mapping the Great American Desert



Topographical Engineer works on a map

Fort Davis

National Historic Site

National Park Service
U.S. Department of the Interior



Curriculum Materials Grades 2-5

Teacher Notes: Mapping the Great American Desert

Topic: Mapping the Great American Desert

- Students will understand the factors that led to the establishment of Fort Davis along the Lower Road between San Antonio and El Paso.
- Students will become acquainted with maps and mapmaking.
- Students will understand about the establishment of the Fort Davis and the movement of the American Frontier west.

Objectives and Standards: Texas Essential Knowledge and Skills (TEKS)

<http://www.tea.state.tx.us/teks/>

Grade 2	Grade 3	Grade 4	Grade 5
Social Studies	Social Studies	Social Studies	Social Studies
113.4: 1,2,3,4,5,6,7,8, 13,18, 19	113.5: 1,2,3,4,5,10,11, 13,16,17,18	113.6: 4,5,6,8,9,21,22,23,24	113.7: 4,6,8,9,25,26,27

Methods of Adapting Material to Various Grade Levels:

Teachers can adapt the reading level of the materials by reading the material to the class in the lower levels and having older students read individually or in pairs. These questions and activities can be used as a springboard for discussion and research. They do not necessarily have to be completed as paper/pencil task.

Materials Needed: Student readings: *Mapping the Great American Desert*, *What Do Maps Tell Us About History?*

Lesson Activities:

Historic readings/background information for students:

- Activity 1 Mapping the Great American Desert
- Activity 2 What Do Maps Tell Us About History
- Activity 3 Make a Relief Map ...Another Kind of Map

Student Activities:

- Activity 1 Reading maps from the period and locating landforms
- Activity 2 Drawing information from maps and creating maps
- Activity 3 Creating a relief map

Resources: The following web sites will offer additional information:

<http://www.over-land.com>
<http://www.texasbeyondhistory.net>

Student Reading Resources:

Westward Ho!: An Activity Guide to the Wild West by Laurie Carlson

Pioneer Days: Discover the Past with Fun Projects, Games, Activities, and Recipes (American Kids in History Series) by David C. King

There's a Map on My Lap! : All About Maps by Tish Rabe

The Complete Book of Maps & Geography by Vincent Douglas

Teacher Resources:

Fort Davis by Robert M. Utley

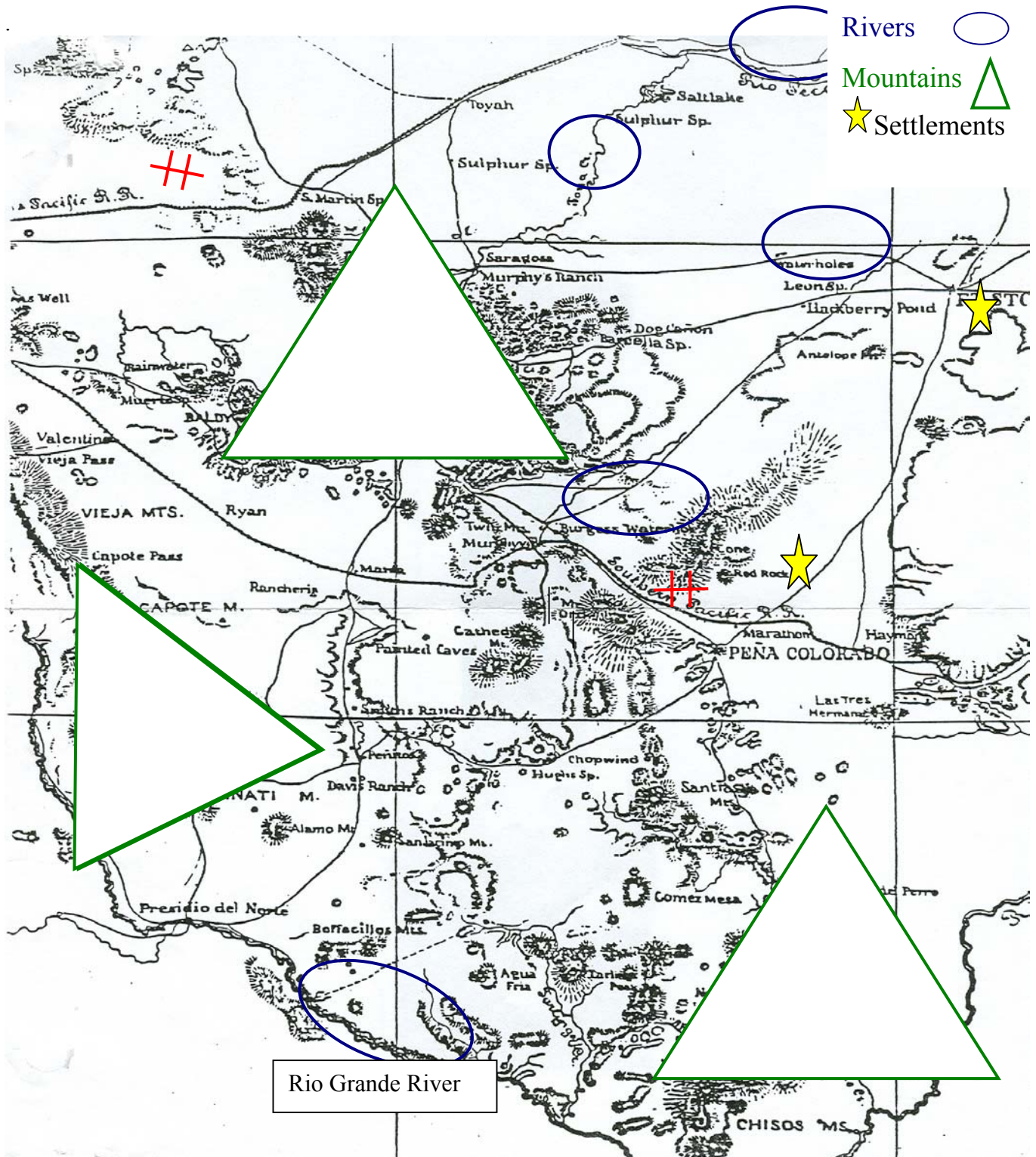
Crossing Rio Pecos by Patrick Dearen

Activity 1 Mapping the Great American Desert

- Students will read the student historical background article as a class, individually, or in pairs depending on reading level.
- Students will answer the questions and locate the land features shown on the map.

Activity 1 Teacher Key (color version needed)

Railroads ++
 Rivers ○
 Mountains △
 Settlements ★



Activity 2 What Do Maps Tell Us?

- Students will compare maps of the line of frontier forts during the time period of Fort Davis.
- This activity would be best as a whole class activity to use as a springboard for discussion and evaluation.
- Students can then draw a map of their neighborhood or school facility locating houses, roads, stores, rivers, lakes and other landforms or buildings.

Answer Key:

U.S. Army Forts in 1849

1. In 1849, what were the two routes through Texas from San Antonio to El Paso?
Lower Road and Upper Road
2. Which fort is the most northern of the early forts? **Fort Worth**
3. Which two territories border Texas? **Indian Territory and New Mexico Territory**
4. The line of forts indicates the edge of the Texas Frontier in 1849. Is the frontier in eastern or western Texas? **east Texas**
5. Had Fort Davis been established by 1849? Explain why or why not.
No, the line of settlement at that time was still in what today is east Texas.
6. What geographic features are displayed on this map? Why would it be important for travelers to know about geographic features? **rivers, mountains, marshes, coastline, etc.**

Army Forts in 1854

1. What direction has the line of forts moved? **west**
2. Why do you think forts were needed? **More people were moving west.**
3. What was the name of the fort established at El Paso? **Fort Bliss**
4. Mark San Antonio on the map. **Accept appropriate answers.**

Army Forts at the End of the Civil War 1865

1. How many forts were active in Texas after the Civil War? **16**
2. What is the state of Oklahoma called at this time? **Indian Territory**
3. What is the state of New Mexico called at this time? **New Mexico Territory**
4. What is the most western fort in Texas? **Fort Bliss**
5. Why do you think most of the central Texas forts have towns near them but the western forts did not? **Greater population and more settlement in central Texas. West Texas at the time was still considered the frontier - dangerous and sparsely settled.**
6. What does this map show you about certain American Indian tribes? **The location of the reservations of the Commanche, Kiowa and Mescalero Apache reservations..**

Army Forts After 1867

1. Look at the first map and compare it with this map.
2. What has happened to the Texas frontier? Explain the reasons for the forts in Texas.
The line of Texas forts protected settlers as they moved west to settle or travel further west. The forts protected travels and settlers from Indian attacks. By the time the U.S. Army closed fort Davis, the area was relatively settled and a more law-abiding environment prevailed.
3. Show the San Antonio to El Paso road on your map. **Accept appropriate answers.**

Activity 3 A Different Kind of Map ...Make a Relief Map

- Have students use an example of a relief map and create a salt dough map of Texas. Have them locate the Lower Military Road, San Antonio, El Paso and their hometown if in Texas.
- This activity can lead to a discussion of different types of maps and the use of technology for mapmaking that has occurred within the last decade. Satellite mapping and GPS have changed the way we look at maps and our planet. For a satellite view of Fort Davis use the Web to go to <http://virtualearth.msn.com/> and type in Fort Davis, Texas. Zoom in until you can see the National Park site.

Other Extensions:

- Large maps to print and map puzzles available as freeware from:
<http://www.yourchildlearns.com/owlmouse.htm>
- USGS has a map adventure to download and use in your classroom.
<http://interactive2.usgs.gov/learningweb/teachers/mapadv.htm>
- Students can create a map of the school or a map of their classroom. This lesson could extend into a measurement activity depending on the grade level.

Students can learn about the landforms of the area by creating mountains, mesas, hills, plains, and valleys using play-doh or clay to form examples and then discuss how they affected the pioneers' trip west

Wrap-up and Assessment: Students will successfully complete the Student Activity sheets. Teacher can assess understanding and grade activity as appropriate.

Fort Davis National Historic Site

National Park Service
U.S. Department of the
Interior

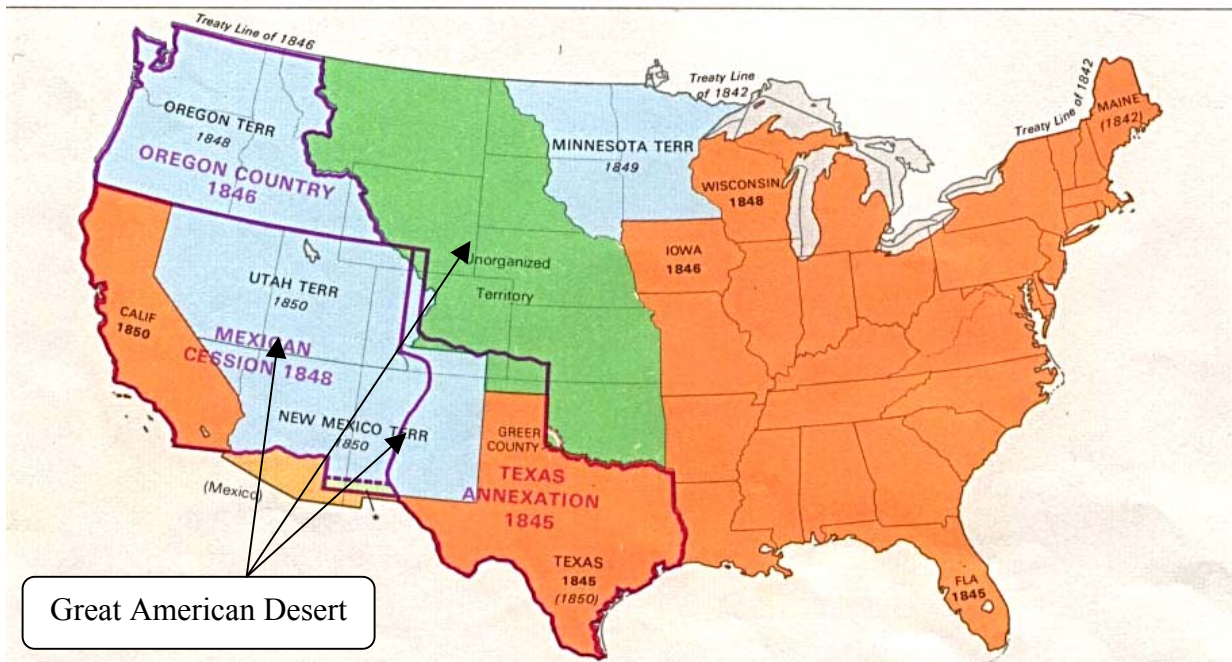


Curriculum Materials Grades 2-5

Student Activity: Mapping the Great American Desert

Mapping the Great American Desert

In 1848, gold was discovered in California and many people wanted to travel west to seek their fortunes. The United States had just gained ownership of much of the Southwest after the Mexican War ended that year, and more land a few years later through the Gadsden Purchase of 1853. The actual boundaries of Mexico and the United States were still uncertain.



1850 Map of United States showing land acquired by the Mexican War and Gadsden Purchase. Courtesy of the University of Texas Libraries, University of Texas at Austin

Many maps of that time labeled this area as the “Great American Desert,” a huge empty spot of un-surveyed and unexplored land in the western United States. Very little was known about this area. It needed to be explored and mapped so that transportation and communication could connect all of the United States.

In 1848, a party of 37 men left San Antonio to find a route to El Paso. This expedition, called the Hayes-Highsmith expedition, failed trying to cross the harsh Big Bend area. In 1849, another expedition under Lieutenant William Smith and Lieutenant William Whiting set out to locate a better route. They located a route that was later mapped and became the Lower Road. It passed by “Painted Comanche Camp” – an area near what later became the site of the military post of Fort Davis.




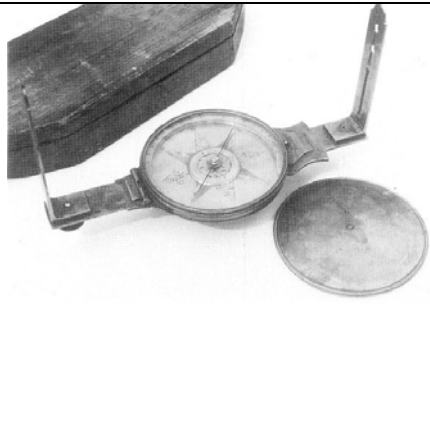
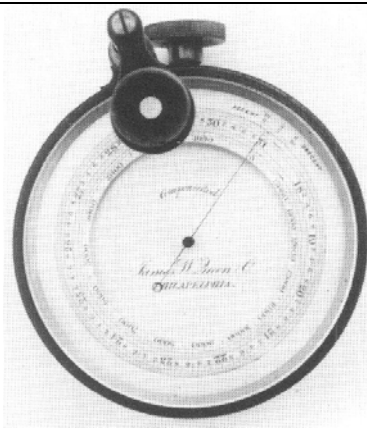
Topographical Engineer works on a map (photo taken at a Living History event)

Why did this area need to be mapped?

Many people set out for the gold fields of California. Without good maps locating the trails and water supplies, they would die – and many did. What kind of things did the mapmakers include on their maps? They included

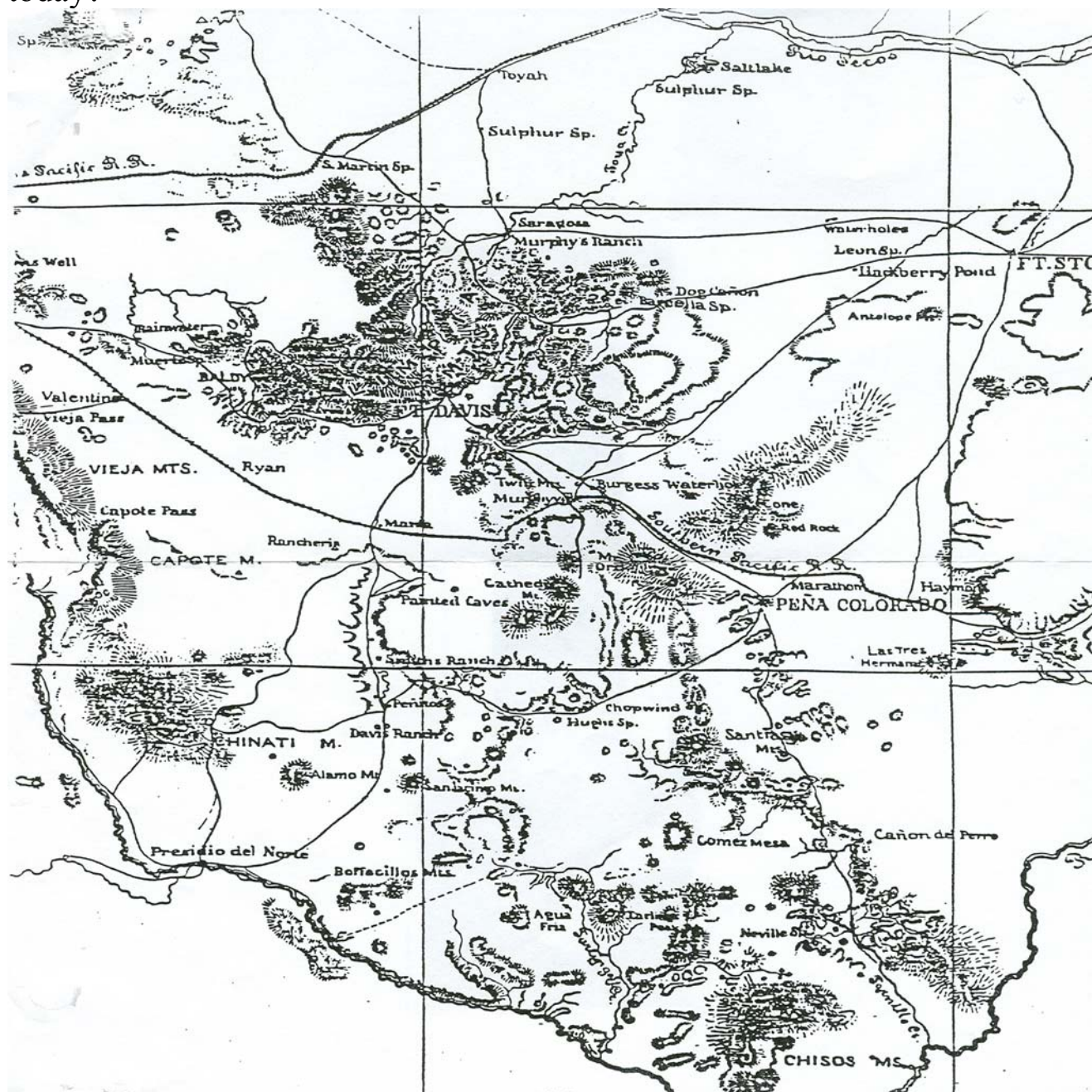
settlements and forts, of course. More importantly, they included the type of land features and water that the travelers would find. Maps were created with a type of pen that did not contain ink but required that the mapmaker – called a cartographer – dip the sharp end of the pen into a bottle of ink in order to draw on the paper. Most of the first maps of this area of Texas were made by army officers trained as Topographical Engineers at the U.S. Military Academy at West Point. These officers were highly trained in mapping and surveying.

These are some of the instruments that a cartographer used.

		
<p>Drawing Instruments - used by cartographers to convert survey notes & sketches into a finished map</p>	<p>Surveyor's Compass - for quick measurements of bearing or elevation</p>	<p>Aneroid Barometer - for measuring significant differences in elevation</p>

As you can see from the map on the next page, the hand-drawn maps from that time show landforms differently than maps today. Look at and compare it with a modern Texas road map. How are the two maps different? How are they alike? Have you ever used a map when traveling? How did it help you?

Look at this military map of the area made in 1884 during the time Fort Davis was an active army post. In what ways is it different from a road map today?



Using crayons or colored pencils, highlight these land features:

River or water hole – blue

Mountains or higher elevations – green

Settlements – yellow

Railroads – red

Fort Davis

National Historic Site

National Park Service
U.S. Department of the Interior



Curriculum Materials Grades 2-5

Student Activity: What Do Maps Tell Us About History?

What Do Maps Tell Us About History?

Maps not only help us to get somewhere and to understand what an area looks like. Maps also help us understand history and the way events took place. Look at the maps below. They show U.S. Army forts in Texas at different times in our history. Use your map skills to answer the questions with each map.

Maps used with permission from Texas Beyond History - <http://www.texasbeyondhistory.net/forts/military.html#map>



U.S. Army Forts in 1849

1. Which fort is the most northern of the early forts?
2. Which two territories border Texas?
3. The line of forts indicates the edge of the Texas Frontier in 1849. Is the frontier located in eastern or western Texas in 1849?
4. Had Fort Davis been established by 1849? Explain why or why not.
5. What land features are displayed on this map? Why would it be important for travelers to know about geographic features?



Army Forts in 1854

1. What direction has the line of forts moved since 1849?
2. Why do you think forts were needed?
3. What was name of the fort established at El Paso?
4. Mark San Antonio on the map.



Forts at the End of the Civil War 1865

1. How many forts were active in Texas after the Civil War?
2. What is the state of Oklahoma called at this time?
3. What is the state of New Mexico called at this time?
4. What is the most western fort in Texas?
5. Most of the central Texas forts have towns near them, but the western forts do not. Why do think people are not building towns in west Texas?
6. What does this map tell you about certain American Indian tribes?



Army Forts After 1867

1. Look at the first map and compare it with this map.
2. What has happened to the Texas frontier? Explain the reasons for the Texas forts.
3. Show the San Antonio to El Paso Road on your map.

Student Activity:

Be a cartographer!

Draw a map of your neighborhood. Include houses, roads, stores, schools, rivers, lakes or creeks that are in your neighborhood.



Fort Davis

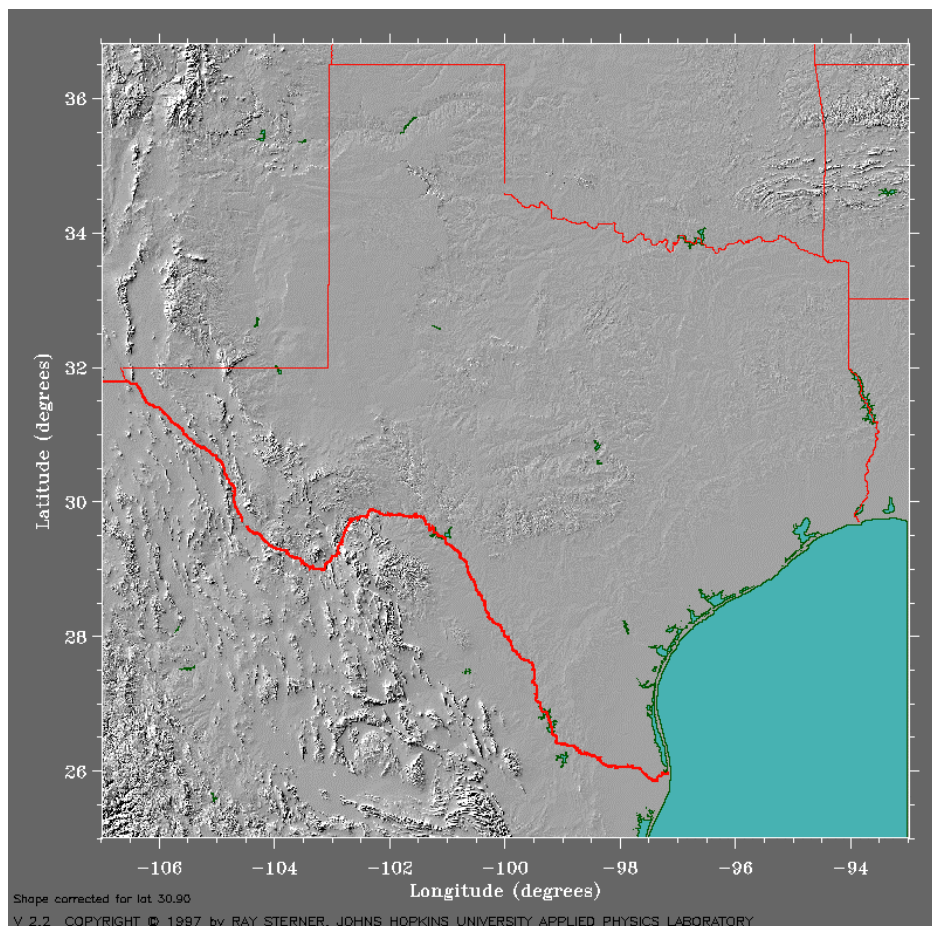
National Historic Site

National Park Service
U.S. Department of the Interior



Curriculum Materials Grades 2-5

Make a Relief Map... another kind of map



Knowledge of the types of landforms you would encounter on your trip to California in the 1850s was very important. Crossing deep rivers, climbing mountains, and descending into valleys could mean danger to the wagon train. Maps of that time were drawn with the landforms shown by symbols. Now with satellite technology we can see pictures of the shape of the land.

Using the relief map above make a salt dough map of Texas and show the land features. Then use the map “West Texas Trails 1850-60” that follows to locate San Antonio, El Paso (formerly known as Franklin), Fort Davis, the Lower Road, and other places you

might know. You can draw them in the damp salt dough with a toothpick or draw them with a marker after the dough has dried.

Materials needed:

- 9 cups of flour
 - 3 cups of salt
 - 3 cups of water
 - Food coloring
 - Cardboard cut out of Texas
 - Cardboard square for base of map
 - Toothpicks
 - Markers
- } Mix together to make firm salt dough

Directions:

1. Trace the shape of Texas on your poster board.
2. Using the relief map illustration, mold the salt dough to create a relief map.
3. Build up hills and mountains with salt dough where they are located on the map.
4. Then use the map on the next page to add San Antonio, El Paso, Fort Davis and the Lower Road.

